



UNITED STATES PATENT AND TRADEMARK OFFICE

51

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,647	05/02/2002	Stefan Hahn	Q3926.037	3527

7590 09/22/2004
Stephan a Pendorf
Pendorf & Cutliff
5111 MEMORIAL HIGHWAY
Tampa, FL 33634-7356

EXAMINER

JANKUS, ALMIS R

ART UNIT	PAPER NUMBER
----------	--------------

2671

DATE MAILED: 09/22/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,647

Applicant(s)

HAHN ET AL.

Examiner

Almis R Jankus

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 27-50 are presented for examination.

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 46-49 been renumbered 47-50.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 27-29, 34, 36-38, 43-47 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoehn.

With respect to claim 27 Hoehn teaches the claimed generating a virtual display representing the operating environment of the vehicle, at figure 4 item 22; displaying within the virtual display the image element as a three dimensional image, at figure 5 item 23; changing at least one characteristic of an image element depending at least one of: the roadway ahead, at figure 4 item 21; an operating parameter of the vehicle, at column 2 lines 13-23 as the amount of gas; and a parameter of an object identified in the area of the vehicle preceding roadway, at column 1 line 57 to column 2 line 4; wherein said display includes at least one three dimensional image element representing an operating parameter or providing warning information, at column 1 lines 42-45 and at figure 5 item 23. The limitation of "three dimensional image" is met by the teaching of a heads-up display with a holographic combiner at column 1 lines 7-34.

Claim 28 further requires the change in the image element to be a change in shape, color, position and/or dimension. Hoehn teaches this at column 1 line 44, and at column 2 lines 11-12.

Claim 29 further requires the roadway to be displayed as an image element. Hoehn teaches this at figure 4 item 21.

Claim 34 further requires the operating parameter of the vehicle to be provided as an image element. Hoehn teaches this at column 2 lines 13-23.

Claim 36 further requires the object in the area of the roadway to be classified and evaluated as to a type selected from the group consisting of vehicle, obstacle, pedestrian and/or traffic sign. Hoehn teaches vehicle and traffic sign at column 1 line 57 to column 2 line 4.

Claim 37 further requires a symbol representing the object to be provided as an image element. Hoehn teaches this at figure 5 item 23.

Claim 38 further requires the actual detected value of the operating parameter of the vehicle and/or the parameter of the object to be provided as an image element. Hoehn teaches this at column 2 lines 13-47.

Claim 43 further requires the image to be displayed on a display surface in the dashboard or instrument panel or in the field of view of the windshield of the vehicle. Hoehn teaches display in the field of view of the windshield of the vehicle at column 1 lines 7-34.

Claim 44 recites features previously presented at claim 27 and are rejected under the same respective rationale. .

Claim 45 requires features previously rejected at claim 28, and are similarly rejected for claim 45.

Claim 46 is rejected under the rationale presented at the rejection of claim 29 for the same respective elements.

Claim 47 further requires at least one measurement technical means is provided for determining the vehicle path, the operating parameter of the vehicle and/or the parameter of the object. Hoehn teaches this at figure 3 item 31.

Claim 49 further requires the segment to be a multi-color segment. Hoehn teaches this at column 2 lines 11-12.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of

each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 30-33, 35, 42, 48 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoehn as applied to claims 27 and 44 above, and further in view of Nojima et al.

Claim 30 depends from claim 27 and further requires the contour of the roadway in the display to be continuously conformed to the natural course of the stretch of road ahead of the vehicle. Nojima et al. Teaches this at figure 17 and at column 8 lines 27-36. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the feature of displaying the continuously conformed natural course of the road ahead because the driver can readily and securely obtain information necessary for the current condition and thereby drive comfortably and smoothly, at taught by Nojima et al. at column 9 lines 8-10.

Claim 31 further requires a speedometer or tachometer scale to be provided as an image element. Nojima et al. Teaches this at column 6 lines 20-27.

Claim 32 further requires the speedometer or tachometer scale to continuously conformed to the contour of the roadway. Nojima et al. Teaches this at figures 10a-10c.

Claim 33 further requires the speed of the vehicle to be detected as an operating parameter. Nojima et al. Teaches this at column 6 lines 49-57.

Claim 35 further requires the speed, type and/or dimension of the object to be determined and evaluated as a parameter. Nojima et al. Teach this at column 8 lines 34-36 as the distance between the two vehicles measured by an infrared laser.

Claim 42 further requires a directional indicator for the roadway preceding ones own vehicle to be provided as an image element. Nojima et al. Teaches this at column 7 lines 6-8.

Claim 48 further requires a navigation information system to be provided for providing information regarding the roadway and/or the object. Nojima et al. Teach this at column 1 line 66 to column 2 line 19.

Claim 50 further requires including an acoustic emitter. Nojima et al. Teach this at figure 1 items 18 and 20.

8. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoehn as applied to claim 27 above, and further in view of Dobler et al.

Claim 39 further requires an acoustic and/or an optical signal is emitted upon exceeding and/or falling below a threshold value for a characteristic of the roadway, the operating parameter of the vehicle, or a parameter of the object or the image elements. Dobler et al. Teach this at column 1 line 58 to column 2 line 67 with the acoustic signal as a sound of a rumble strip indicating imminent crossing of a lateral lane marking. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to have the threshold value preset because the vehicle can be kept automatically in a given lane, for example against a driver falling asleep, as taught at column 2 lines 24-56.

Claim 40 further requires the threshold value to be preset. Dobler et al. Teach this at column 2 lines 57-67. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to have the threshold value preset because the vehicle can be kept automatically in a given lane, for example against a driver falling asleep, as taught at column 2 lines 24-56.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.


10. Claim 41 recites the limitation "the displayed speedometer or tachometer scale" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almis R Jankus whose telephone number is 703-305-9795. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 703-305-9798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AJ


ALMIS R. JANKUS
PRIMARY EXAMINER